

TABLE 4

DATA ABSTRACTED FROM "BLAST FURNACE
ADVANCEMENT/" BY A. E.
MACCOUN, PRESENTED BEFORE THE
AMERICAN IRON AND STEEL INSTI-
TUTE MEETING ON MAY 28, 1915

Test of a 22' 0"X 100' 0"—Two-pass
Cowper Hot-blast Stove

Heatin ⁰ * surface of checkers .	51 192	4764 m ²
Total of stove	55 866	5202 m ²
Combustion chamber, area	40 8	3 m ² 79
Height to burner	10 62 ft	3 m 50
Above burner	76 75 ft	23 m 10
Total	87 38 ft	26 m 60
Volume below burner	468 ft ³	13 m ³ 26
Above burner	3092 ft ³	87 m ³ 54
Total	3560 ft ³	100 m ³ 80
Dome volume	1381 ft ³	39 3 10
Checker Number of passes	329	
Dimensions of passes	6"X6"	150X 150
Total area of passes	82 25 ft ²	7 m ² 64
Perimeter of one pass	2 0 ft	0 m 60
329 passes	658 ft	197 m 40
Height of	77 75 ft	24 m 00
Heating surface = 197 . 40X 24 . 0 =	51.160	4738 m ²

(Difference due to use of
approximate metric value)

Wall thickness	0 25 ft	75 mm
Area per pass = (150X75) ² =		0 m ²
Of pass = 150 ²		0 m ²
Brickwork per pass (difference) . .		0 m ²
Percentage of in brick (Table 3)		55 56
In pass (Table 3)		11 11
Total Checker = 0 050625X329 =		16 m ²
Passes = 0 . 022500X329 =		7 m ²

(Difference due to use of approximate
metric value?)

Brick = 16 655-7.403=		9 m ² 252
Volume, Total brick and passes		400 m ³
Passes = 7 403X24 =		177 m ³
Brick		222 m ³

(Difference due to use of
approximate metric value)

Weight (as given)	453
251.85X180	,35
0 =.	0
(metric)	kg
222.66	400
X1800 = .	,80
	0
	kg